GROWTH MODEL PILOT PROJECT PROPOSAL

ADDENDUM
MARCH 17, 2006

SUBMITTED TO
DR. CATHERINE FREEMAN
UNITED STATES DEPARTMENT OF EDUCATION
CATHERINE.FREEMAN@ED.GOV

SUSAN CASTILLO
STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

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March 17, 2006

Dr. Catherine Freeman
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U.S. Department of Education
400 Maryland Avenue SW
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SENT VIA EMAIL TO: **CATHERINE.FREEMAN@ED.GOV**

Dear Dr. Freeman:

It is my pleasure to submit to you Oregon's ADDENDUM to our Growth Model Pilot Project Proposal that was previously submitted on February 17, 2006. As a part of Secretary Spelling's equation, *Raising Achievement: A New Path for No Child Left Behind* Oregon has shown results, Oregon has followed the tenets of NCLB, and Oregon has committed to implementing this long-sought flexibility with the greatest level of integrity and enthusiasm.

This Addendum is submitted to you in response to questions raised by Assistant Secretary Henry Johnson. I appreciate the opportunity to clarify issues pertaining to our application. In addition, I am hopeful that this Addendum will prompt continued consideration for Oregon's compelling proposal. We are eager to work with you in implementing a growth model as a part of AYP determination.

Please contact me if I can provide you with any further information to expedite the review process. We are eager to work closely with you and your colleagues on this historic initiative.

Sincerely,

Susan Castillo
Superintendent of Public Instruction

PRINCIPLE 1 UNIVERSAL PROFICIENCY

- Has the state proposed technically and educationally sound criteria for "growth targets" for schools and subgroups? (Principle 1.2)
  - What are the state's growth targets relative to the goal of 100 percent of student proficient by 2013-14? (Principle 1.2.1)
    - **Please clarify how this model that uses growth expectations for average school growth ensures that all students are proficient by 2013-14?**

      PROPOSAL REFERENCE Principle 1.2.1, Page 14

ODE RESPONSE

There is no school-level measure that fully represents the performance of each and every individual in the school. A common criticism of measures like percent proficient is that they do not reveal the performance of students above the cut-point or clearly indicate the nature of performance below the cut-point. For example, schools with 20% of students below proficient may have students on the verge of proficiency or students very far from proficiency with no clear information provided by the percentage metric.

Oregon has chosen to use school average growth as our primary indicator of school performance within the growth model portion of the accountability system because the mean has important and useful statistical properties. Every student score and the actual value of every student score exerts an influence on the school mean, so the mean is actually more representative of individual student performance than other measures like "percentage below".

However, it is important to take the multilevel structure of schooling into account. In order to accomplish this we are proposing the use of a hierarchical linear model for estimating growth. It is still true, though, that an average cannot be entirely generalized to individuals within the group. Therefore, in order to fulfill the promise and expectation of NCLB in accounting for all children, we have designed a number of checks and balances for our system to ensure the achievement of all individuals as well as accountability for school level performance.

First, our system maintains the use of the status-based model. As a result, we will have an explicit reporting of the percentage of students meeting proficiency standards each year and that information will continue to be used for accountability decisions. Because of this feature our accountability model using status and growth will still require 100% of all students to meet proficiency by 2013-14.

Second, in the growth model we will disaggregate school total results and examine subgroup growth rates for each disaggregated group (using the same disaggregated groups now

reported in the status-based model). These results will be used for accountability decisions. This procedure will ensure that there are no differences in growth related systematically to particular subgroups of children and will ensure attention to the growth of these students and the size and presence of achievement gaps.

Third, by setting individual student growth targets we will attend to the learning and achievement of every individual student. By counting and reporting the percentage of children reaching their growth target each year in each school we also provide a check on the effectiveness of school level results in impacting the progress of individuals within the school. This procedure also ensures that students who are not making progress cannot be masked or hidden in the system.

Fourth, as described in the proposal, we will explicitly review and revisit our mechanisms for evaluating growth in 2008 to ensure that the model is working as intended. If necessary, we will design and propose modifications and revisions to the system at that time.

- Does the state proposed growth model include a relationship between consequences and rate of student growth consistent with Section 1116 of ESEA? (Principle 1.4)
  - Has the state clearly described consequences the state/LEA will apply to schools? Do the consequences meaningfully reflect the results of student growth? (Principle 1.4.1)
    - **Please clarify whether the consequences that will be applied to schools that do not meet AYP using the growth model will be consistent with Section 1116.**

      PROPOSAL REFERENCE Principle 1.4.1, Page 17

ODE RESPONSE

Under Oregon's approved Accountability Workbook, schools receiving Title I funds that do not meet AYP in the same content area (i.e., English/Language Arts, Mathematics, other Academic Indicator) for two years in a row are identified for school improvement as required under section 1116. To exit school improvement status, a school must meet AYP for two years in a row in the content area that caused the school to be identified for improvement. Student growth will be used in conjunction with the existing, status-based AYP determinations and the existing safe harbor provision to ensure that schools are not incorrectly identified as being in improvement status when there is substantial growth in achievement occurring in the school.

Under the current system, if a group meets the statewide participation target and the statewide academic achievement target, the group is designated as meeting AYP in the content area. A group that does not meet the academic status target may qualify as meeting AYP under the safe harbor provision of

NCLB. Using safe harbor, a group that reduces the percentage of students not meeting the standards by 10% or more, from the prior year to the current year, will be designated as meeting AYP in the content area, as long as the group also meets the target for the other academic indicator of graduation or attendance.

Under Oregon's proposal, growth data provides a third avenue for a group to meet AYP if the group does not meet AYP on academic status or through safe harbor. A group that meets the established growth target for students showing progress from the prior year to the current year will be designated as meeting AYP, as long as the group also meets the target for the other academic indicator of graduation or attendance.

The State of Oregon ensures that consequences, outlined on Table 1.0, will be applied to schools that do not meet AYP using the growth model. These consequences are explicitly stated in the state's *School Improvement Resource Manual* and are consistent with Section 1116 of the *No Child Left Behind Act.*

TABLE 1.0 SCHOOL AND DISTRICT CONSEQUENCES FOR NOT MEETING AYP SANCTIONS BY YEAR

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Year 1	**Year 2**	**Year 1 School Improvement**	**Year 2 School Improvement**	**Year 3 School Improvement Corrective Action**	**Year 4 School Improvement Plan Restructure**	**Year 5 School Improvement Restructuring status**
APY Not Met	AYP Not Met	• Notify Parents • Offer School Choice • Provide transportation assistance • Revise and implement School Improvement Plan (SIP) • Provide professional development	• Notify Parents • Offer School Choice • Provide transportation assistance • Offer Supplemental Educational Services (SES) • Revise and implement the SIP • Provide professional development	*In addition to the school improvement steps, the district must take at least one of the following corrective actions* • Replace some school staff • Institute new curricula • Decrease management authority of school • Appoint outside expert • Extend school day/year • Restructure school	*Prepare a restructuring plan to implement at least one of the following:* • Replace all or most of school staff • Contract with an outside entity to operate the school as a public school • Turn the school over to the SEA for operation • Re-open the school as a public charter school • Restructure the school's governance	Implement the Restructuring Plan

PRINCIPLE 2 ESTABLISHING APPROPRIATE GROWTH TARGETS AT THE STUDENT LEVEL

- Has the state proposed a technically and educationally sound method of depicting annual student growth in relation to growth targets? (Principle 2.1)
    - Has the state adequately described a sound method of determining student growth over time? (Principle 2.1.1)
        - **Please clarify how the growth targets for each student will be established. Specifically, please address whether the growth targets will be revised each year.**

PROPOSAL REFERENCE Principle 2.1.1, Page 18

ODE RESPONSE

Growth target calculations will be performed each year and each student's expected growth trajectories will be revised based on current year performance and current growth rates. As a result, each student will have an annual growth target and we will report the percentage of students meeting their growth target each year in each school.

Our planned growth model sets growth targets separately for individuals and for schools. We believe this is necessary because individuals are not fully predictive of the overall school performance nor can school level results be generalized to the progress of each and every individual student. By setting growth targets at each level and explicitly considering individuals and schools together, we believe our system fully complies with the intent of NCLB and performance at each level provides information, checks, and balances on the other level.

We will employ a standard setting procedure in July, 2006 to determine specific growth targets for individual students. We believe that the nature of knowledge acquisition results in steeper slopes in the early grades than the later grades and the pattern of growth is different across grades. The standard setting procedure will use existing data on growth in the state to inform the setting of growth expectations at different levels of achievement, in the two primary content areas (mathematics and language arts), and at different grade levels. If our growth expectations are to be set in a realistic way, we believe these empirical considerations must be taken into account.

There will be two requirements in the standard setting process for individual students, however. First, a student who is currently below proficiency must have a growth target that, through projection, ensures that the student meets proficiency in four years. That is, if a student is below proficiency, we will calculate expected growth as the slope necessary for the student to attain proficiency in four years. Second, for students who are above proficiency, the student's

current growth rate will be projected into future years to maintain a rigorous expectation of continued growth.

- **Please provide examples for the peers of how the growth model's concept of "on the path to proficiency" will work for students at different achievement levels.**
  PROPOSAL REFERENCE Principle 2.1.1, Page 18

ODE RESPONSE

The ODE expects every student to make appropriate growth every year. Our phrase "on the path to proficiency" for students below standards means the growth necessary to achieve proficiency within four years. In addition, the ODE will expect students who are above proficient to continue to show growth even if their performance remains above the proficient requirement. The question that will be asked as part of the standard setting process will be what is considered sufficient interim growth. The ODE expects that this question may be answered differently for students below proficiency versus students above proficiency in that students below proficiency must have greater growth expectations; however, rigorous expectations for all students will be maintained. In general the guiding principals will be the following:

- For students below proficiency: adequate growth means a student is on track to be proficient within 4 years.
- For students at proficiency: adequate growth means maintaining or exceeding proficiency
- For student exceeding proficiency: adequate growth means continuing to show rigorous growth as defined by stakeholders.

- **Please clarify whether student demographics or school characteristics will be used in the student growth model. Specifically, please clarify the sentence, "While we will not use student characteristics in setting growth targets, student background demographics or characteristics can easily be used to monitor the outcome of the growth model at individual or school levels."**
  PROPOSAL REFERENCE Principle 2.1.1, Page 18

ODE RESPONSE

No background, demographic, or conditioning variables will be used in the growth model. Demographics, student characteristics, and school characteristics will not be used in calculation of the growth model. Growth targets will be set based on the current level of achievement, the current achievement growth rate, and the relationship of the growth rate to the

standards for expected growth. Thus, any individual with the same level of performance and the same rate of growth will have the same growth expectation no matter what their background or demographics. Any school with the same level and rate of growth will have the same growth expectation no matter what the composition of the school.

The phrase in our proposal on page 18, stating that "…student background demographics or characteristics can easily be used to monitor the outcome of the growth model…**"** does not refer to calculations in the growth model but to the need to monitor and report outcomes. For example, while student ethnicity will not be used in the calculation of the growth model, we will examine and report growth model results and outcomes by disaggregated subgroup to ensure that these subgroups are demonstrating progress towards achievement targets. As required under NCLB, performance for subgroups must be measured and reported and in the proposed growth model, schools must meet growth targets as a whole and for each disaggregated subgroup.

- **Please clarify whether any school characteristics will be used to develop growth expectations nested within that school.**
  PROPOSAL REFERENCE Principle 2.1.1, Page 18

ODE RESPONSE

As described above, no background or conditioning variables will be used in the growth model. Demographics, student characteristics, and school characteristics will not be used in calculation of the growth model. Growth targets will be set based on the current level of achievement, the current achievement growth rate, and the relationship of the growth rate to the standards for expected growth. Any school with the same level and rate of growth will have the same growth expectation.

PRINCIPLE 4 INCLUSION OF ALL STUDENTS

- Does the state's growth model proposal address the inclusion of all students, subgroups, and schools appropriately? (Principle 4.1)
  - Does the state's growth model address the inclusion of all students appropriately? (Principle 4.1.1)
    - **Please verify whether all students in all schools in the state will be included in the growth model, for reporting and for accountability determination purposes.**
      PROPOSAL REFERENCE Principle 4.1.1, Page 19

ODE RESPONSE

All students in all schools will be included in the growth model. Growth is calculated and reported for all students regardless of the school's AYP designation or status. A growth expectation is also calculated for every student regardless of the student's status or which school a student attends. Student growth is reported for each individual student and the percentage of students meeting their growth expectation each year in each school is reported. For accountability determinations for schools, all students are included in the growth model if they have been in the current school for a full academic year and as long as they have at least one prior test in the same district the previous year.

Table 2.0, below, summarizes how students in Oregon are included in AYP determinations and reporting of student results:

Table 2.0 Inclusion Rules for Reporting and Accountability

Calculation	Use	Inclusion Rule
Participation	AYP determinations	All students enrolled on the first school day in May
Academic status and safe harbor	AYP determinations	All students enrolled on the first school day in May for a full academic year
School and subgroup growth – growth intercept	AYP determinations	All students enrolled on the first school day in May for a full academic year with a valid scale score
School and subgroup growth – mean slope	AYP determinations	All students enrolled on the first school day in May for a full academic year with a valid scale score and a valid scale score from a previous year's test in the same district
Percentage of students meeting growth targets in school or group	Public reporting	All students enrolled on the first school day in May for a full academic year with a valid performance level and a valid performance level from a previous year's test in the same district
Reports of individual student growth to parents	Reporting to parents	All students enrolled on the first school day in May with a valid performance level and a valid performance level from a previous year's test

PRINCIPLE 5 STATE ASSESSMENT SYSTEM AND METHODOLOGY

- Does the statewide assessment system produce comparable information on each student as he/she moves from one grade level to the next? (Principle 5.3)
    - Has the state used any "smoothing techniques" to make the achievement levels comparable and, if so, what were the procedures? (Principle 5.3.4)
        - **Please provide additional information regarding the confidence interval that will be applied to the growth model and how it will be calculated.**

          PROPOSAL REFERENCE Principle 5.3.4, Page 27

ODE RESPONSE

In order to take statistical uncertainty into account, we will use a confidence interval around the school slope. As long as the confidence interval contains the school growth target the school will be judged as meeting the growth standard when the school is below the target. When the school is already above the standard, we will require the school slope to remain above the standard by the width of the confidence interval. A 68% confidence interval will be used to attempt to ensure that more rigorous standards are applied and expectations for low performing schools to meet proficiency are maintained. That is, in this application, wider confidence intervals result in relaxed expectations for growth, smaller confidence intervals will require higher rates of growth. The formula to be used for calculation of the confidence interval is the based on the standard error of the slope:

$CI_{68} = \gamma_{10} +/- (1.0)(\tau)$

Where

γ_{10} = school slope, and

τ = standard error of the slope

PRINCIPLE 6 TRACKING STUDENT PROGRESS

- Has the state designed and implemented a technically and educationally sound system for accurately matching student data from one year to the next? (Principle 6.1)
    - What studies have been conducted to demonstrate the percentage of students who can be "matched" between two academic years? Three years or more? (Principle 6.1.4)
        - **Please provide additional evidence of the match rates for two, three, or more years for the full school population and subgroups.**

          PROPOSAL REFERENCE Principle 6.1.4, Page 29

ODE RESPONSE

102,607 Oregon students in 2004-05 were eligible to take tests in grades 4, 6, and 9. Table 3.0 describes the match rate by subgroup based on students who were identified with the same student identifier as being eligible to test in grades 3, 5, and 8 in 2003-04. Please note that students may appear in more than one subgroup listed below and therefore the totals exceed the original count of students.

Table 3.0 Match Rates by Subgroup

Subgroup	Matched	Count	Matched
Asian	No	448	9.2%
Asian	Yes	4397	90.8%
Black	No	332	10.5%
Black	Yes	2816	89.5%
EconDA	No	3482	8.0%
EconDA	Yes	39993	92.0%
Hispanic	No	1601	10.6%
Hispanic	Yes	13513	89.4%
LEP	No	1284	10.8%
LEP	Yes	10620	89.2%
Migrant	No	266	8.5%
Migrant	Yes	2873	91.5%
Native American	No	199	8.6%
Native American	Yes	2104	91.4%
Special Education	No	974	6.7%
Special Education	Yes	13635	93.3%
White	No	5328	7.4%
White	Yes	67081	92.6%

- How does the proposed state growth accountability model adjust for student data that are missing because of the inability to match a student across time or because a student moves out of a school, district, or the state before completing the testing sequence? (Principle 6.1.6)
  - **Please provide additional detail regarding how the state will classify new, missing, or unmatched students. In addition, please clarify whether, and to what extent, missing, unmatched, or new students will affect the ability of a school or district to include that school or subgroup in the growth model, taking into account the minimum subgroup size necessary for inclusion.**

    PROPOSAL REFERENCE Principle 6.1.6, Page 30

ODE RESPONSE

No student with a current valid score is excluded from the analysis of school and district performance. All valid scores are included. All valid scores are included in status calculations. For a student to be included in the growth calculations, a valid score from two consecutive years must be available. By incorporating the current status-based calculations into the model, we insure that all students continue to be included in the accountability system.

The state classifies a New Student as any student with current year assessment data but without a prior test from any previous year or who does not meet the definition of Full Academic Year. Results for students who meet the Full Academic Year definition are included in status calculations for AYP purposes. If there is at least one additional score from the prior year, they are included in the growth calculation.

The state classifies Missing Data as any student enrolled as of May 1 of the current year but without a valid assessment score for the current year. These students are checked against current Average Daily Membership lists to determine if they were counted in ADM in the ADM count in the current year. These students are counted as non-participants and count against the school and district in the Participation Rate calculations.

The state classifies Unmatched Data as any student with a prior year assessment score but no valid score from the current year. If the student was not accounted for in the Average Daily Membership list for the current year, it is assumed that the student is out of the system and no current data is available to match with the prior year's score. It is, therefore, assumed that these students are no longer enrolled in a school within the Oregon system. Since no current valid data exists for these students, they are not counted in status or growth calculations. The Department of Education will conduct a study in the coming year to determine the extent of unmatched data

over multiple years. We think that a large number of students with unmatched data have, in fact, left the state and are no longer in the system. It is expected that such cases would be rare as non-enrolled students are removed from the system on a regular basis for the reporting of Average Daily Membership.

The data above indicate an approximate 90% match rate or higher in all subgroups with no apparent discrepancy in any one group. We are confident that sufficient cell sizes will be available in most schools and districts for appropriate analysis. If cell size is negatively impacted by the match rate to a level that growth cannot be reliably calculated, AYP calculations will still be available under status and safe harbor methodologies.